

Claims

1. System for treating, in particular for
cataphoretically dip-coating, articles, in particular
5 vehicle bodies, comprising
- a) a plurality of treatment stations, of which at
least one comprises a treatment container and at
which the articles undergo a treatment;
- 10 b) a feed device, by means of which the articles are
conveyed through the various treatment stations
and are in the process introduced into and
removed from the at least one treatment
15 container,
- characterized in that
- c) the feed device comprises at least one feed
20 carriage (5), which in turn comprises:
- ca) running gear (7, 8, 9 to 12) movable along
the path of motion of the articles (4);
- 25 cb) at least one swivel arm (50, 51) coupled to
the running gear (7, 8, 9 to 12);
- cc) a holding device (61) coupled to the swivel
arm (50, 51) for at least one article (4);
- 30 cd) mutually independently actuatable drives (32,
33, 56, 57, 80, 81) for the translational
movement, the swivelling motion of the at

least one swivel arm (50, 51) and of the holding device (61);

- 5 d) a service cage (90; 191) for carrying at least one person is fastenable to the holding device (61; 161);
- 10 e) a device is provided, by means of which the service cage (90; 191) upon a swivelling motion of the swivel arm (50, 51; 150, 151) is kept in vertical alignment.
2. System according to claim 1, characterized in that the drive connection between the holding device (61) and the independent drive (80, 81) for the holding device (61) is disconnectable.
- 15 3. System according to claim 2, characterized in that a mechanical guide device (92; 192) is provided, which keeps the service cage (90, 190) in vertical alignment.
- 20 4. System according to claim 3, characterized in that the mechanical guide device (92) comprises:
- 25 a) a rigidly fastened, horizontally extending guide rail (93);
- b) a guide block (94) displaceable on the guide rail (93);
- 30 c) a vertical guide (95), which is fastened to the guide block (94) and connected to the service

cage (90) and fashioned in such a way that it allows vertical movements of the service cage (90).

- 5 5. System according to claim 4, characterized in that the vertical guide (95) is a telescopic guide.
6. System according to claim 4, characterized in that the vertical guide comprises a guide rod, which
10 extends through the guide block and is guided linearly therein.
7. System according to claim 4, characterized in that the vertical guide comprises a guide rod, which
15 extends through the element, which establishes the connection to the service cage, and is guided linearly therein.
8. System according to claim 3, characterized in that
20 the guide device (192) comprises a connecting rod (193), which is coupled at one end to the service cage (180) and at the other end to a structure (194), which is rigidly connected to the running gear (107, 108, 109 to 112), such that the connecting rod (193)
25 together with the swivel arm (151) forms a parallelogram guide.
9. System according to claim 2, characterized in that a
30 gear unit is provided, which in the mounted state of the service cage establishes a positive coupling between the swivelling motion of the swivel arm and the swivelling motion of the holding device carrying the service cage, such that the service cage upon a

swivelling motion of the swivel arm remains vertically aligned.

10. System according to claim 2, characterized in that
5 the swivel arm is coupled to the region of the service cage lying above the centre of gravity of the service cage and the service cage is suspended in pendulum fashion from the swivel arm.
- 10 11. System according to claim 10, characterized in that damping or friction elements are provided for damping the reciprocating motion of the service cage.